Claim Listing

1.(currently amended): A composition comprising at least one water-soluble phthalocyanine photocatalyst of formula 1(b)

(1b)
$$\left[Me \right]_{q} \left[PC \right]_{r} \left[Q_{2} \right]_{r}$$

in which

PC is the phthalocyanine ring system;

Me is Zn; Fe(II); Ca; Mg; Na; K; Al-Z₁; Si(IV); P(V); Ti(IV); Ge(IV); Cr(VI); Ga(III); Zr(IV); In(III); Sn(IV) or Hf(VI);

Z₁ is a halide; sulfate; nitrate; carboxylate; alkanolate; or hydroxyl ion;

q is 0; 1 or 2;

r is any number from 1 to 4;

Q₂ is hydroxyl; C₁-C₂₂alkyl; branched C₃-C₂₂alkyl; C₂-C₂₂alkenyl; branched C₃-C₂₂alkenyl and mixtures thereof; C₁-C₂₂alkoxy; <u>a sulfo or</u> a carboxyl radical; a radical of the formula

$$-SO_{2}-X_{4} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -SO_{2}-N + \underbrace{ \begin{array}{c} R_{13} \\ R_{14} \end{array} }_{R_{14}}; \quad -(T_{1})_{d}-(CH_{2}) = \underbrace{ \begin{array}{c} R_{13} \\ N - \\ R_{17} \end{array} }_{R_{17}} = \underbrace{ \begin{array}{c} CH_{2}-Y_{2} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11} \\ R_{12} \end{array} }_{R_{12}}; \quad -CH_{2}-Y_{2} - \underbrace{ \begin{array}{c} R_{11$$

$$-CH_{2}Y_{2} \longrightarrow N \\ N \\ R_{14} \\ CI^{-} \\ CI^{-$$

$$-(CH_{2})_{w} - S \stackrel{\uparrow}{=} C \stackrel{N-R_{15}R_{16}}{(N-R_{15}R_{16})};$$

a branched alkoxy radical of the formula

alkylethyleneoxy unit of the formula an alkylethyleneoxy unit of the formula $-(T_1)_d-(CH_2)_b(OCH_2CH_2)_a-B_3 \ or \ an \ ester \ of \ the \ formula \ COOR_{18}$

in which

B₂ is hydrogen; hydroxyl; C_1 - C_{30} alkyl; C_1 - C_{30} alkoxy; - CO_2 H; - CH_2COOH ; - SO_3 - M_1 ; - OSO_3 - M_1 ;

-PO₃²-M₁; -OPO₃²-M₁; and mixtures thereof;

 B_3 is hydrogen; hydroxyl, <u>; -SO₃-M_{1.}; -OSO₃-M_{1.}</u>-COOH or C₁-C₆alkoxy;

M₁ is a water-soluble cation:

 T_1 is -O-; or -NH-;

X₁ and X₄ independently of one another are <u>O-</u>; -NH- or -N-C₁-C₅alkyl;

R₁₁ and R₁₂ independently of one another are hydrogen; a <u>a sulfo group and salts thereof, a carboxyl</u> group and salts thereof or a

hydroxyl group; at least one of the radicals R_{11} and R_{12} being a sulfo group and salts thereof; a carboxyl group or salts thereof,

 Y_2 is -O-; -S-; -NH- or -N-C₁-C₅alkyl;

 R_{13} and R_{14} independently of one another are hydrogen; C_1 - C_6 alkyl; hydroxy- C_1 - C_6 alkyl; cyano- C_1 - C_6 alkyl; sulfo- C_1 - C_6 alkyl; carboxy or halogen- C_1 - C_6 alkyl; unsubstituted phenyl or phenyl substituted by halogen, C_1 - C_4 alkyl or C_1 - C_4 alkoxy; sulfo or carboxyl or R_{13} and R_{14} together with the nitrogen

atom to which they are bonded form a saturated 5- or 6-membered heterocyclic ring which may

additionally also contain a nitrogen or oxygen atom as a ring member;

R₁₅ and R₁₆ independently of one another are C₁-C₆alkyl or aryl-C₁-C₆alkyl radicals;

 R_{17} is hydrogen; an unsubstituted C_1 - C_6 alkyl or C_1 - C_6 alkyl substituted by halogen, hydroxyl, cyano, phenyl, carboxyl, carb- C_1 - C_6 alkoxy or C_1 - C_6 alkoxy;

 R_{18} is C_1 - C_{22} alkyl; branched C_3 - C_{22} alkyl; C_1 - C_{22} alkenyl or branched C_3 - C_{22} alkenyl; C_3 - C_{22} alkoxy; branched C_3 - C_{22} alkoxy; and mixtures thereof;

M is hydrogen; or an alkali metal ion or ammonium ion,

 Z_2 is a chlorine; bromine; alkylsulfate or aralkylsulfate ion;

a is 0 or 1:

b is from 0 to 6;

c is from 0 to 100;

d is 0; or 1;

e is from 0 to 22;

v is an integer from 2 to 12;

w is 0 or 1;

where the phthalocyanine ring system may also comprise further solubilising groups and at least one azo dyestuff and/or at least one triphenylmethane dyestuff, which produce a relative hue angle of 220-320 °, wherein the dyestuff component is degraded when the composition is exposed to sunlight and wherein the degradation rate of the azo dyestuff(s) and/or triphenylmethane dyestuff(s) is at least 1% per 2 hours.

2-5. (cancelled).

6.(previously presented): A composition according to claim 1, comprising at least one azo dyestuff of formula

$$(HO_3S)_n$$
 $N=N$ $N=N$

$$(HO_3S)_n$$
 $N=N$
 $N=N$

wherein

X and Y, independently of one another, are each hydrogen; C₁-C₄-alkyl or C₁-C₄-alkoxy,

 $R\alpha$ is hydrogen or aryl,

Z is C₁-C₄-alkyl; C₁-C₄-alkoxy; halogen; hydroxyl or carboxyl,

n is 1 or 2 and

m is 0, 1 or 2, as well as the corresponding salts thereof and mixtures thereof.

7.(previously presented): A composition according to claim 1, comprising at least one azo dyestuff of formula

8. (previously presented): A composition according to claim 1, comprising at least one triphenylmethane dyestuff of formula

10/567,203 - 5 - HF/15-22936/A/PCT

- 9. (previously presented): A composition according to claim 1, wherein at least one FWA is comprised.
- 10. (previously presented): A granular formulation comprising a composition according to claim 1.
- 11. (previously presented): A granular formulation according to claim 10 comprising

a) from 2 to 75 wt-% of at least one water-soluble phthalocyanine compound and at

least one azo dyestuff and/or at least one triphenylmethane

dyestuff based on the total weight of the granulate,

b) from 10 to 95 wt-% of at least one further additive, based on the total weight of the

granulate, and

c) from 0 to 15 wt-% water, based on the total weight of the granulate.

12. (previously presented): A liquid formulation comprising a composition according to claim 1.

13. (withdrawn): A detergent formulation comprising

I) from 5 to 70 wt-% A) of at least one anionic surfactant and/or B) at least one non-ionic surfactant, based on the total weight of the washing agent

formulation,

II) from 5 to 60 wt-% C) of at least one builder substance, based on the total weight of the

washing agent formulation,

III) from 0 to 30 wt-% D) of at least one peroxide and, optionally, at least one activator,

based on the total weight of the washing agent formulation, and

IV) from 0.001 to 1 wt-% E) of at least one granulate which contains

a) from 2 to 75 wt-% of at least one water-soluble phthalocyanine compound and at

least one azo dyestuff and/or at least one triphenylmethane

dyestuff as defined in claim 1, based on the total weight of the

granulate,

b) from 10 to 95 wt-% of at least one further additive, based on the total weight of the

granulate, and

c) from 0 to 15 wt-% water, based on the total weight of the granulate,

V) from 0 to 60 wt-% F) of at least one further additive, and

VI) from 0 to 5 wt-% G) water.

14.(withdrawn): A softener composition comprising

(a) a composition comprising at least one photocatalyst and at least one azo dyestuff and/or at least one triphenylmethane dyestuff, as defined in claim 1, and

(b) a fabric softener.

- 15. (withdrawn): A shading process using a composition as claimed in claim 1.
- 16. (previously presented): Textile treated with a composition as claimed in claim 1.
- 17. (new). A composition according to claim 1, wherein the formula (1b) is the water-soluble phthalocyanine photocatalyst of formula (4)

(4)
$$\left[Me \right]_{q} \left[PC \right]_{q} \left[SO_{3} - Y_{3}' \right]_{r}$$

in which

PC is the phthalocyanine ring system;

Me is Zn; Fe(II); Ca; Mg; Na; K; Al- Z_1 ; Si(IV); P(V); Ti(IV); Ge(IV); Cr(VI); Ga(III); Zr(IV); In(III); Sn(IV) or Hf(VI);

Z₁ is a halide; sulfate; nitrate; carboxylate; alkanolate; or hydroxyl ion;

q is 0; 1; or 2;

Y₃' is hydrogen; an alkali metal ion or ammonium ion; and

r is any number from 1 to 4.

18. (new) A compositions according to claim 17, wherein the dyestuff is selected from the group consisting of

10/567,203 - 9 - HF/15-22936/A/PCT